

REMARKS

Reconsideration of this application, as amended, is requested.

Claims 1, 2, 5-8, 10 and 11 remain in the application and under consideration. Claims 3, 4, 9 and 12-18 are withdrawn. Independent claim 1 has been amended to define the invention more clearly. Pending claims 6 and 7 also have been amended to ensure conformity to amended claim 1.

Examiner Strimbu, as usual, provided a very detailed and helpful consideration of the previously submitted amendments and arguments. Those helpful comments have guided the preparation of this amendment and hopefully will facilitate the prosecution.

The Examiner objected to the figures because the original figures did not provide clear support for terms that now are in the claims. This amendment is submitted with a Replacement Sheet for FIG. 2. FIG. 2 has been amended slightly to illustrate the passages that were described in the specification but not illustrated clearly in the original drawing. It is submitted that these minor clarifying changes to FIG. 2 do not add new matter.

Claims 1, 2, 5-8, 10 and 11 were rejected under 35 USC 112, second paragraph. The Examiner identified specific locations in the claims that were considered to be unclear.

Claims 1 and 6 have been amended to address the rejections under 35 USC 112, second paragraph.

Claims 1, 2 and 5-8 were rejected under 35 USC 103(a) as being obvious over Japanese Publication No. 2002-002288 considered in view of U.S. Patent No. 4,392,344 to Gordon. The Examiner identified the elements of the references that were believed to teach or suggest elements recited in the claims as existing prior to this amendment. The Office Action also provided a rebuttal to the arguments presented in the last Office Action.

JP2002-002288 is directed to a power supply assembly to deliver power from a vehicle body 5 to a slide door 1. A guide rail 2 is mounted to the slide door 1 and a slider 3 is mounted for sliding movement along the guide rail 2. A wire harness 4 "is fixed to the slider". A connector 11 is at the end of the wire harness 4 that delivers power and/or signals to operative components of the door 1. A second connector 17 is at the opposite end of the wire harness 4 and connects to a wire harness 8 inside the vehicle body 5. Portions of the wire harness 4 between the slider 3 and the connector 11 provide sufficient slack to accommodate sliding movement of the door 1 from the closed position to the opened position. JP2002-002288 apparently concludes that slack on the part of the wire harness 4 in the door 1 is acceptable. However, JP2002-002288 shows that the portion 4a of the wire harness 4 between the slider 3 and the vehicle body 5 is formed into a loop disposed in a box 7. The loop can expand or contract as the slide door 1 is moved so that the portion 4a of the wire harness 4 between the slider 3 and the vehicle body 5 can be extended or contracted. Counsel previously argued that JP2002-002288 did not suggest pivoting the spanning part 4a in response to movement of the slider 3 along with guide rail 2. The Examiner disagreed and asserted

that some pivoting necessarily must take place as the slider 3 moves along the guide rail 2 even though the pivoting necessarily occurs concurrently with extension and contraction from the box 7. The Examiner acknowledges that JP2002-002288 does not have a cable guide formed to undergo a bending deformation about a plurality of parallel axis and only in a specified plane. To address that admitted deficiency of JP2002-002288, the Examiner turned to Gordon.

Counsel and the applicant appreciate the Examiner's well reasoned approach to the examination process. However, it is believed that amended claim 1 now distinguishes patentably over the combination of JP2002-002288 and Gordon.

The two references and the subject invention share several common features. In particular, all three have a body that includes a power supply, a moveable member that requires power to be delivered from the power supply in the body, a rail, a slider movable along the rail and a wire harness that extends from the fixed body to the slider. JP2002-002288, Gordon and the subject invention all have their wiring harnesses fixed to the slider. The two references, however, differ significantly from one another and from the subject invention with respect to several important components. In particular, JP2002-002288 specifically provides for expansion and contraction of the spanning parts 4a of the wire harness 4 combined with some pivoting of the spanning part 4a as the door 1 is moved. The expansion and contraction of the spanning part 4a relative to the box 7 necessarily creates the likelihood of wear between the wiring harness 4 and the opening 25 in the box 7 as the wire harness 4 simultaneously expands and pivots or contracts and pivots. Portions of the wire harness 4 between the

slider 3 and the connector 11 must have a length sufficient to accommodate the full range of movement of the slider 3 along the rail 2. The wire harness 4 in this section between the slider 3 and the connector 11 can move without control, and therefore creates the potential for being caught on other structural members in the door or wearing against other structural members. The reference has no suggestion of any means for guiding movement of the wire harness 4 in this area.

Gordon provides a plurality of wire guides linked to one another and extending between the fixed power supply and a slider 14 mounted on guide rail. The linked wire guides of Gordon are in the position corresponding to the expandable and contractible part 4a of the wire harness 4 shown in the above-described Japanese reference. Gordon provides for no movement between the slider and the electrical component to which the slider is connected.

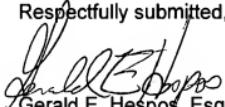
In contrast to these two references, the invention defined by amended claim 1 provides a spanning part of the cable with a door-side end fixed to the slider and a body-side end supported by the fixing member. The spanning part has a substantially fixed length between the fixing member and the slider. Additionally, the spanning part of the cable is pivotal relative to the fixing part and the slider about axes that are parallel to the plane of the cable guide. Support for these limitations and advantages of these limitations can be appreciated with reference to the FIGS. 11A-11D. The fixed length of the spanning part between the fixing member and the slider avoids problems associated with the expansion and contraction of the wire harness 4 of the Japanese reference and the likelihood of wear associated with such expansion and contraction. Additionally, the

linked cable guide at this location becomes unnecessary, thereby providing a very efficient mechanism for accommodating both front to rear movement of the sliding door and inward and outward movement of the sliding door as the door moves from a closed position flush with the side panel of the vehicle to an open position outside of the side panels of the vehicle. The invention defined by amended claim 1 achieves this part of the movement of the door with a simple pivotal movement about axes extending parallel to the plane of the cable guide without changing the length of the spanning part. The claimed invention then provides a cable guide extending between the slider and the fixing portion. This part of the cable does not have to accommodate inward and outward movement of the door, and remains entirely within the door. Additionally, the cable guide at this location controls the movement of the cable and prevents the cable from being caught on other structures in the door and wearing against other structures in the door. This is clearly distinct from the arrangement shown in JP2002-002288 where the corresponding part of the cables is free to move in any manner. The claimed arrangement also is distinct from Gordon which has no movement of the wires between the slider and the electrical components to which the wires are directed.

It is submitted that the invention defined by the amended claims is patentable over the combination of references applied in the Office Action and provides very significant structural and functional advantages over the prior art. Accordingly, it is submitted that the invention defined by amended claims 1, 2 and 5-8 is patentable over the applied art.

Claims 10 and 11 were rejected under 35 USC 103(a) as being obvious over JP2002-002288 considered in view of Gordon and considered further in view of Ayran. The Ayran reference does not overcome the deficiencies of JP2002-002288 and Gordon as explained above. Accordingly, it is submitted that the claims remaining in the application are directed to patentable subject matter and allowance is solicited.

Respectfully submitted,



Gerald E. Hespos, Esq.
Atty. Reg. No. 30,066
Customer No. 001218
CASELLA & HESPOS LLP
274 Madison Avenue - Suite 1703
New York, NY 10016
Tel. (212) 725-2450
Fax (212) 725-2452

Date: April 24, 2007